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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,340	08/31/2001	Agathagelos Kyrlidis	96072CIP2	1425
7590 02/08/2007 Martha Ann Finnegan, Esq.		EXAMINER		
Cabot Corporation			PHASGE, ARUN S	
Billerica Techr 157 Concord R			ART UNIT	PAPER NUMBER
Billerica, MA (01821-7001		1753	
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SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)			
Office Action Community	09/945,340	KYRLIDIS ET AL.			
Office Action Summary	Examiner	Art Unit			
	Arun S. Phasge	1753			
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence ad	dress		
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timused apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	N. nely filed the mailing date of this of 0 (35 U.S.C. § 133).	,		
Status					
1)⊠ Responsive to communication(s) filed on 13 No.	ovember 2006.				
2a) ☐ This action is FINAL . 2b) ☑ This	This action is FINAL . 2b)⊠ This action is non-final.				
) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.			
Disposition of Claims		·			
4) ☑ Claim(s) 5,11-76,78 and 79 is/are pending in the 4a) Of the above claim(s) 11-15 is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) 5, 16-76, 78-79 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	n from consideration.				
Application Papers					
	_				
 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Examine 	epted or b) objected to by the Edrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CF	• •		
	animer. Note the attached Office	Action of form F i	0-132.		
Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.					
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Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ite			

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 5, 16, 19, 21, 28, 31, 33, 39, 42, 44, 51 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stalling in view of Japanese Patent 04-346830 ('830).

The Stalling patent only discloses the use of fullerenes, which are carbon particles, which are smaller than the claimed range. The '830 patent teaches the use of carbon particles including the claimed range having attached organic molecules used as packing for a chromatography column (see abstract).

Accordingly, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to use bigger sized carbon molecules in place of the fullerenes taught by the Stalling patent, because the Japanese patent teaches that bigger carbon molecules can be used to present additional benefits with the use of said porous carbon.

Claim 17, 29 and 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stalling in view of Japanese '830 as applied to claims above, and further in view of Kusano of record for reasons of record.

Claims 18, 20, 22-27, 30, 32, 34-38, 41, 43, 45-50, 52, 54-76, 78-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stalling in view of Japanese '830 as applied to claims above, and further in view of Boes of record for reasons of record.

Response to Arguments

Applicant's arguments filed 9/15/06 have been fully considered but they are not persuasive.

Applicants further argue that the Stalling patent does not describe the attachment of the aromatic portion of the defined group be attached to the carbonaceous material. The specification does not recite that the aromatic portion of the defined group is attached to the carbonaceous material. Therefore, the figure 10B shows just such attachment, since the aromatic portion is attached to said carbonaceous material.

The use of the crosslinking agents would read upon the claims, in particular since the formation of the polymer particle attached to a carbonaceous particle would read upon the claims.

With regard to the combination of the Kusano patent with the Stalling patent, applicants argue that the Kusano patent does not disclose the attachment onto anything, rather is merely discloses the coating onto the substrate. As disclosed in the Japanese patent the coating of the carbon particles with organic materials would amount to attachment within the meaning of the claims. To use a different material, such as the amino acid derivative taught by the Kusano patent, would have been obvious to one having ordinary skill in the art at the time the invention was made, because such coating provides an "attachment" of the organic material onto the substrate.

With regard to the combination of the Boes with the Stalling patent, applicants argue that the Stalling patent uses the organic groups to attach the fullerenes to the polymer or siliceous particles.

The Stalling patent teaches that different attachments of the organic compounds to the fullerenes affects the chromatographic separation of the obtained separation medium and are not there merely for the formation of a

lattice structure (see col. 4, line 50 to col. 5, line 28). The secondary references are cited to show the use of other organic compounds attached to carbonaceous material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Stalling patent with the teachings contained in the Boes patent, because the secondary reference teaches other organic groups attached to carbonaceous material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun 5. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or

Árun S. Phasge

Primary Examiner

Art Unit 1753

571-272-1000.